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Positive eyes facilitate use of pigment and shape information from the rest of the face

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P3-26: Positive eyes facilitate use of pigment and shape information from the rest of the face

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A positive eye region offsets the detrimental effect of photographic negation on recognition by making negated information from the rest of the face available (Gilad, Meng, & Sinha, 2009). We tested whether the added information is shape or pigment based by contrasting the effects of polarity on shape-only and shape with pigment ("texture-mapped") stimuli. Face and eye areas could be either positive or negative, and observers performed a same/different identity matching or a sex judgment task. The contrast chimera effect (i.e. performance for stimuli with positive eyes and negative face as good as for full positive) was replicated for the sex judgment task when pigment information was available, suggesting that positive eyes make negated face pigment information usable. Positive eyes also improved performance for positive face shape without pigment suggesting a more general benefit of positive eyes as well as an effect of negation for shape-only stimuli. For same/different judgments positive eyes were not sufficient to offset the effects of negation but again improved performance with positive face shape. The results cannot be attributed to eye contrast alone, and are interpreted as evidence that positive eyes facilitate access to degraded information in the rest of the face.

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